CHECKLIST FOR NUTRIENT STANDARD MENU PLANNING SOFTWARE PROGRAMS (CN13 Version)

Program Name: _____ Version number: _____

Company: _____ Contact: _____

Date: _____

This checklist is intended to assist software developers in evaluating a software package to meet the specifications for Nutrient Standard Menu Planning (NSMP). This document does not replace the *School Food Service Software System Specifications and Functional Requirements Document* (specifications document) and may not include all aspects of the Specifications, but does provide a means of checking software programs for the <u>major</u> requirements in the specification document.

For further information about the specifications and requirements, refer to the specifications document, guidance documents, and other documents posted on the Healthy Meals Resource System web site at:
http://healthymeals.nal.usda.gov/softwaresuppot.html

Contact the Software Evaluation Coordinator for information about any recent updates to the requirements and with questions about the requirements for NSMP.

Food items, recipes, and menus are designed to test the functions and limits of the software and may not reflect actual data used in school food service.

	Meets Requirement? (circle yes or no)	
1. Are all of the appropriate files and fields from the Child Nutrition (CN) Database available to the user? (last food in CN13 is CND# 118478 Sauce, Butter, BUTTER BUDS; Fat-Free, Transfat-Free; Dry; Mix w/ water; All natural; 24/4oz)	YES	NO
a. Standard reference foods? (Find Child Nutrition Database number (CND#1179 -- Sour cream, light).	YES	NO
USDA standardized recipe foods? (Find CND#50190 -- Potato, Scalloped, prepared from fresh potatoes; with margarine & fresh onions).	YES	NO
Commodity foods? (Find #6178 -- USDA Commodity, salsa).	YES	NO

b. Manufacturer's food items? (Find #112680, Beans, Barbecued, Canned; 6/#10(108 oz); as purchased, #108720 – Dessert toppings; Dessert topping, strawberry syrup, rtu, 4/1gal; as purchased)   YES   NO

c. Has the current release of the CN database been implemented correctly (food items **added** [#16256 - SILK Black Cherry soy Yogurt], **modified** [#11312 Peas, green, frozen, unprepared (Total Fat – 0.4 g, Protein – 5.22 g, Carbohydrate – 13.62 g, Total Dietary Fiber – 4.5 g, Sodium – 108 mg, Moisture – 79.98 g per 100 grams], **removed** [#13316 -- Beef, ground, patties, frozen, (approximately 23% fat), raw]?   YES   NO

d. Does the program's database include the **discontinued** ("d") foods from the CN Database [#20137 -- Quinoa, cooked]?   YES   NO

e. Is the Buying Guide (BUYGD) information available as a reference in the ingredient entry (required) and recipe development (recommended) functions? Is the BYGDLNK file implemented for singular and multiple links [Buying Guide Code (BGC) 887 to CND# 1019; BGC 520, 523, 524 to CND#5188, and BGC 419 to CND#s 1012, 1014, 1015, 1016, 1036, 1037]?   YES   NO

f. Are the measure descriptions and associated gram weights from the Gram Weights and Measure Descriptions File (WGHT), referred to as the Weights file, connected to the appropriate CN Database numbers and available at recipe development and menu planning? Is the full measure description available to the user? Is the user able to add measures for CN Database items? Is the source of the measure clearly defined (e.g. USDA vs. locally-added [user- or developer-added)?   YES   NO

g. Are there appropriate length fields available, especially for description, ID# (CND#, or CND# and Include line #, or Subcode #), category, manufacturer, product code, and source of nutrient data (USDA, local, vendor) (See Systems Requirements and File Formats document)?   YES   NO

h. Are the CND# and full long description displayed whenever the user must select or fully identify a food item, e.g. menu planning and recipe development (recommend manufacturer, and product code, too)?   YES   NO

i.   Are food items categorized by USDA categories or other   YES   NO
     grouping system?

j.   Is there a system for the developer to update the software   YES   NO
     utilizing the date added, date modified, and status fields from
     the CN Database?

k.   Is the source of the item clear to the user? The user should be   YES   NO
     able to easily identify USDA items from the CN Database.
     Developer-added or user-added items should be identified as
     such.

l.   Is the user able to search for food items by description, CND#,   YES   NO
     and category?

2. **Enter the following local food item for Biscuit with Egg and Ham.**

Biscuit with Egg and Ham

Description: Biscuit w/egg & ham
Food ID#: 900000
Brand Name: Superior
Product Code: 123456789012345
Food Category: Breakfast Entree
Source of Nutrient Data: Manufacturer Fact Sheet
Serving Weights and Measures: 1 biscuit = 192 g

Nutrients per 100 g:

WATER	54.66	g
CALORIES	230	Kcal
PROTEIN	10.64	g
FAT	14.08	g
CARBOHYDRATE	15.79	g
FIBER	0.07	g
ASH	2.31	g
CALCIUM	115	mg
IRON	2.37	mg
SODIUM	166	mg
VITAMIN A	125	RE
	455	IU
SAT. FAT	4.358	g
CHOLESTEROL	156	mg

m. Are error messages displayed whenever the user attempts to enter inappropriate information, e.g. the weight of components different from the base weight (+/- 10%), the caloric value calculated from grams of protein, fat and carbohydrate different from the total calories (+/- 10%), saturated fat greater than total fat)?   YES   NO

n. Is the user able to enter both RE and IU values for Vitamin A? If only one Vitamin A value is available, is the 1 RE to 5 IU conversion of the other value automatically calculated?   YES   NO

o. Are there at least 5 digits and 3 decimal places available for entry of nutrient values?   YES   NO

p. Can the user enter the nutrient values per 100 g? Per serving   YES   NO
    size? Does the software automatically convert the nutrients per
    100 g information to other standard measures (oz, lb, etc)
    during recipe development/menu planning?

q. Can the user-entered nutrient values be edited?   YES   NO

r. Can the user-entered food item be deleted?   YES   NO

s. Is the information provided by the CN Database regarding a   YES   NO
    food item locked? (The user should not be able to edit or delete
    CN Database data.)

3. Enter the following food item from the label information.

Low Fat Granola Bar

Description: Granola Bar, Low fat
Food ID#: 900001
Brand Name: Webster
Product Code: 234567890123451
Food Category: Snack Foods
Source of Nutrients Data: Manufacturer Food Label
Serving Weights and Measures: 1 bar = 21 g

Nutrients per serving (21 g):

CALORIES	80	Kcal
PROTEIN	2	g
FAT	2.0	g
CARBOHYDRATE	16	g
FIBER	1.0	g
SODIUM	60	mg
SAT. FAT	0	g
CHOLESTEROL	0	mg
ASH	missing	
CALCIUM	0 %DRV	
IRON	10 % DRV	
VITAMIN A	10 % DRV	

a. Is the software able to convert %DRV (Daily Reference Value) to nutrient values per serving in appropriate units? Is user only able to enter %DRV for vitamin A in IU (not for RE)?   YES   NO

b. Are nutrient values per serving able to be converted to nutrients/100 g?   YES   NO

c. Are missing values marked as "missing" rather than as zero values on <u>all</u> nutrient analysis reports containing this product (recipes, menus, etc.)? Are missing values marked for missing values (blanks) for foods in the CN Database?   YES   NO

4. Does the software automatically convert measures for weight and volume (if available) at all levels of item entry, recipe development, and menu planning?   YES   NO

    a. Are all universal weights (oz, lb, g) available?   YES   NO

    b. If one volume measure is provided, are all universal volumes (teaspoon, tablespoon, cup, pint, quart, and gallon) available?   YES   NO

    c. Does the software automatically convert a smaller measure to a larger measure when appropriate (yield adjustment)?   YES   NO

    d. Are fluid ounce, milliliter, and liter only used if a value is provided in the Weights file or entered by the user?   YES   NO

    e. Is auxiliary information (information in parenthesis behind a Weights file measure description) removed or edited to be correct when the measure is converted or used as a multiple or fraction of this measure? For example, for CND# 1053 one weights file description is "cup, fluid (yields 2 cups whipped)". The "(yields 2 cups whipped)" is the auxiliary information and it becomes incorrect if the unit of measure is converted to other units of measure or a multiple/fractional amount is used.   YES   NO

5. Enter the following recipe for Salisbury Steak.

Salisbury Steak

Recipe Name: Salisbury Steak
Recipe Code Number: 60003
Recipe Category: Main Dish, Entree
Serving Weights and Measures:
Number of Servings: 100 servings
Serving Size/Description: 1 patty
Grams per serving: Software should calculate to 80 g.
Moisture Gain/ Loss = -14%
Fat Gain/Loss = -5%
Type of Fat: CND# 4550, Shortening, frying (heavy duty), beef tallow
Provides: 2.5 oz meat

Food Ingredients:

23567	Beef, ground, 85% lean/15% fat, raw	17 lb
8120	Cereals; oats, regular, quick and instant, w/o fortification, dry	1 lb + 8 oz
1123	Eggs; whole, raw, fresh, frozen	10 1/2 oz
14429	Water, Municipal	2 C
6475	Soup, Beef Broth or Bouillon, Powder, or granules prepared w/water	2 C
1091	Milk; dry, skim, nonfat solids, regular, w/o added Vitamin A	4 1/2 oz
11284	Onions; dehydrated flakes	3.5 oz
2029	Parsley; dried	1/2 C
2030	Pepper, Black	1 TB

Preparation Instructions: Combine all ingredients and bake at 350 F.

a.   Are there fields to enter the recipe name, recipe code number,   YES   NO

recipe category, number of servings (yield), serving size/description, grams per serving, food ingredient, ingredient measure/amount, percent moisture gain/loss, percent fat gain/loss, type of fat gained or lost, "provides" statement (optional), and preparation instructions?

b. Is the user prompted or instructed to enter recipes using the Yield Factor Method for nutrient analysis purposes? YES NO

c. Are the ingredient sequence number and grams per serving automatically calculated by the software? YES NO

d. Is the entered information able to be edited/deleted? Can the entire recipe be deleted? YES NO

e. Can the user search for the newly entered recipe by recipe name, recipe code number, and category? YES NO

f. Can a Recipe Report be printed which contains the recipe code number, recipe name, serving/portion size, yield of the recipe based on number of servings, ingredients, the amount of each ingredient in units appropriate for food service (fractions, not decimals), preparation instructions, and nutrient value of the recipe per serving or per 100 g? YES NO

g. Can a Recipe Nutrient Composition Report be printed containing the nutrient value contributed by each ingredient and the total nutrient value of the recipe per serving? per 100 g? YES NO

h. Can the yield of the recipe be adjusted from 100 servings to 425 servings? To 25 servings? YES NO

    i. Does the base recipe remain intact so that rounding errors, which occur during yield adjustment, will not erode the base recipe? YES NO

    ii. Are the measures in the adjusted recipe appropriately rounded? Are measurement conversions accurate and appropriate? YES NO

    iii. Is the format readable and understandable to food service employees? YES NO

    iv. Are fractions used instead of decimals? YES NO

i.   Is there a Recipe/Ingredient Cross Reference report that identifies recipes that contain a certain food ingredient? Can the user search by CND# and food item description?

   YES   NO

j.   Are the *USDA Recipes for Schools* included as production recipes (*not required*, but if the recipes are included, they will be checked)?

   YES   NO

   i.   If so, are the recipes linked to the nutrient analysis of the recipe in the Child Nutrition Database?

   YES   NO

   ii. Is the nutrient analysis from the CN Database used for calculating and displaying the nutrient analysis of recipes and menus?

   YES   NO

   iii. If the recipe is not linked, is the recipe entered using the Yield Factor Method for nutrient analysis purposes? Is the first ingredient used when there is a choice of ingredients? Are optional ingredients omitted?

   YES   NO

   iv. Is the USDA recipe locked? (User may create copies to edit recipes.) Is the source of the recipe listed as developer-added USDA recipe?

   YES   NO

6. Can the nutrient analysis of all food items and recipes in the database (CN Database and local) be printed? Does the report list all required nutrients and the measure with which these nutrients are associated (e.g. per 100 g, per serving, etc.)?

   YES   NO

7. Create the attached menu for Key High School.

a. Are there fields to enter cycle number, week, cycle day (1, 2, etc.), calendar day (Sun-Sat), month, calendar date, meal, location/site, age/grade, feeding figure (total number served), and the nutrient standard for age group and meal (e.g. Age 14-17 Lunch [1/3 of RDA for Lunch])?   YES   NO

b. Can standard menu items (e.g. 300 servings Lowfat Milk, 100 servings Skim Milk, 100 servings Whole Milk) be added to all menus by copying a standard menu or globally adding food items? These items should be able to be placed on menus before adding other items, or added to existing menus.   YES   NO

c. Can food items on a menu be edited/deleted?   YES   NO

d. Copy the menu for Week 1 to Week 2. Copy a range of dates to another range of dates. Can you copy menus? Can you copy a range of dates? Can cycle menus be assigned to a calendar?   YES   NO

e. Copy the menu to another site, e.g. Park Elementary, and assign the nutrient standard for lunch for ages 10-13 to the menus. Did the software accurately copy menus to appropriate dates? Could you assign a new nutrient standard? Can you change the feeding figure and number of servings for each menu item? Can you change the serving sizes for the lower age group?   YES   NO

8. Menu Reports should be able to be specified by school, cycle, month, week, day, meal(s), and/or date range.

a. Calendar Format--Can the menu be printed in a monthly calendar YES   NO
format to be distributed to students? Are menu items listed in appropriate format for a student population? Are the month, date, site/location, etc. listed? Can a 7-day (Sunday-Saturday) menu be produced?

b. Report Format--Is there a sequential listing of all menu items served that can be printed by day, week, month, or date range?   YES   NO

9. Menu Production Report

a. Can a report be printed for use by food service workers to determine the quantities and serving sizes of food to prepare for a specific site? YES   NO

b. Does the report include the menu offered along with the portion size, projected serving amount of each menu item, total feeding figure, and identifying information (site, meal, etc.)? YES   NO

c. Is the report in units, terms, and format easily understood by food service workers? YES   NO

10. **Missing Food/Recipe Item Report--Does the software alert the user that an item being entered (or already entered) onto a menu, does not exist in the database (or does not contain nutrient or measurement information)? *OR*, is the software able to print a report (Exception Report) of food items and recipes that are entered onto menus or recipes, but are not contained in the database?** YES   NO

11. **Nutrient Standards**

a. Are the nutrient standards provided by USDA (Standard and Modified RDA data (age groups) sets, grade range standards, and age 51+ standards) incorporated into the software and available for comparison in nutrient analyses? YES   NO

b. Can a new nutrient standard (e.g. age 9-13) be created, simply by entering the age or grade range of the new grouping (not by entering nutrient values)? Can the user create or select single-age or grade standards? YES   NO

c. Are the nutrient values in the nutrient standards locked (unable to be changed)? YES   NO

d. Can you delete the user-added nutrient standards? (user should not be able to delete the USDA nutrient standard age/grade groups, but should be able to delete the user-added nutrient standard age/grade group. YES   NO

e. Can a report summarizing the nutrient standards for each meal and age group served at a particular site be printed? Can all nutrient standards be printed?   YES   NO

12. Menu Nutrient Analysis

a. Can you complete a weighted nutrient analysis for Week 2 of the menu prepared for Key High School, Ages 14-17? Complete the weighted nutrient analysis and check for errors.   YES   NO

b. *Optional Functions*: *Food Based Menu Planning, pre-defined simple averaging and combined breakfast lunch analysis are optional*, but if included, these functions must be checked.

    i. Does the program include a simple averaging function in which the developer automatically inputs the feeding figure and number of servings of each menu item?   YES   NO

    ii. Does the program calculate a combined breakfast lunch nutrient analysis?   YES   NO

    iii. Does the program calculate the Food Based Menu Planning (FBMP) credit or contribution amounts for any recipe or menu item (It must not. Required.)?   YES   NO

    iv. Does the program include (recommended) include a disclaimer stating that the FBMP components of the program have not been evaluated or approved by USDA?   YES   NO

    v. Does the program attempt to evaluate the FBMP components against the required amounts (meal pattern requirements). (It should not. Recommended.) Tallying the amounts provided for each food group is acceptable.   YES   NO

c. Menu's Nutrient Composition Comparison Report—Is there a report that summarizes the calculated nutritional value of an individual menu and compares each individual day's menu to a standard (not the average over a date range). Can this report be displayed and printed?   YES   NO

    i. Does the report show the percentage of the nutrient   YES   NO

standard (for the specified meal and age group) met, and the discrepancy from the standard (the difference between the nutrient standard and the menu's actual nutrient value)?

ii. Are meals and nutrients that do not meet the nutrient standard highlighted or marked, or is a separate report issued that lists meals and nutrients not meeting the nutrient standard?	YES	NO
iii. Is the nutrient analysis of menus that contain food items with missing nutrient values (Day 1, Granola Bars) appropriately marked? (The total nutrient value should be marked with a code or symbol to indicate that some or all of the nutrient data was missing [not available]).	YES	NO
d. Meals Percentage Report—Is there are report that summarizes the analyzed menus averaged over a specified range of days/dates, including one-week & two-week periods and compares the average to a specific nutrient standard. Can this report be displayed and printed?	YES	NO
i. Does the report show the percentage of the nutrient standard (for the specified meal and age group) met, and the discrepancy from the standard (the difference between the nutrient standard and the menu's actual nutrient value)?	YES	NO
ii. Are meals and nutrients that do not meet the nutrient standard highlighted or marked, or is an Exception Report issued?	YES	NO
iii. Is the nutrient analysis of menus that contain food items with missing nutrient values (Day 1, Granola Bars) appropriately marked? (The total nutrient value should be marked with a code or symbol to indicate that some or all of the nutrient data was missing [not available]).	YES	NO

13. **Are the following nutrients displayed on <u>all</u> nutrient analysis reports: calories, protein, carbohydrate, fat, cholesterol, saturated fat, vitamin A, vitamin C, iron, calcium, sodium, fiber, and, on recipe and menu analyses, the percentage of calories from protein, carbohydrate, fat, and saturated fat?**   YES   NO

    a. Is vitamin A shown in both RE & IU on nutrient analysis reports and displays for recipes and menus (both are recommended; if one is used, RE is preferred)? Prepare to show two units of measures for vitamin A, probably RAE and IU, in the near future.   YES   NO

14. **Nutrient Food Source List--Is there a function in the software to search the database for food items (local and CN Database) containing a specified range of values for nutrient(s)? This function would be used to adjust menus that were found to be deficient in specific nutrients by nutrient analysis.**   YES   NO

    a. Are users able to search for food items containing nutrients below, above, and/or between user-specified nutrient values?   YES   NO

    b. Are the food items displayed with the portion size and the actual value of the specified nutrient on the printed report?   YES   NO

    c. Can the user search for up to 5 nutrients at one time?   YES   NO

    d. Can the report be displayed on the screen and printed?   YES   NO

15. **Training Documents**

    a. Are the User's Manual, Tutorials and Training Materials easy to understand by food service personnel?   YES   NO

    b. Is the information presented complete, sequential, and relevant to all functions of the software?   YES   NO

    c. Are examples of data entry or sample screens provided?   YES   NO

    d. Can a new user quickly learn how to perform all of the functions of the program utilizing the information in the documentation?   YES   NO

e. Are there any inconsistencies between screen prompts and documentation? YES   NO

16. Functional Requirements

a. Is the program user-friendly? Is it easy to learn and perform functions? YES   NO

b. Are the displays and printouts formatted so that they are easy to read and comprehend? YES   NO

c. Are error messages and screen prompts understandable? YES   NO

d. Are there few system crashes, locked screens, etc.? YES   NO

17. Performance Requirements--Does the program perform all   ` YES   NO
functions within an appropriate time period?

18. Memory Size and Hard Drive Requirements – Are the hard drive size   YES   NO
and memory requirements compatible with hardware systems typically used
by school food service?

19. Data Recovery – Does the program have a method to back up   YES   NO
 and restore data?

Lunch Menus

Site/Location: Key High School
Meal: Lunch
Age/Grade: 14-17 (9-12)
RDA Standard: 1/3 of RDA for Ages 14-17
Total Feeding Figure: 500
Cycle 1, Week 1
Dates: September 3-9, 2006

	CND#	Menu Item	Portion Size	# of Servings
		Standard Milk Menu:		
	1079	Milk; lowfat, 2% fat, w/added vitamin A	1 c	300
	1085	Milk; skim, w/added vitamin A	1 c	100
	1077	Milk; whole, 3.3% fat	1 c	100

Sunday, September 13, 2009

	CND#	Menu Item	Portion Size	# of Servings
1)	23573	Beef, ground, 80% lean meat / 20% fat, patty, cooked, broiled (approximately 16.4% fat)	3 oz	350
	50124	Salad, chicken; w/ dehydrated onions, mayonnaise (E-5)	1/2 c	150
	18350	Hamburger or hot dog rolls/buns, plain	1 each	450
	900001	Granola bar, low fat	1 each	50
	11935	Catsup	1 tsp	350
	11944	Pickle relish, hot dog	1 tsp	200
	11250	Lettuce, (includes Boston & bibb), raw	1 lrg leaf	500
	11529	Tomatoes; red, ripe, raw	1/4 c	500
	9046-1	Dewberries; canned, heavy syrup, solids & liquid	1/2 c	225
	9236	Peaches, raw	1 med.	275
		Milk Menu		

Monday, September 14, 2009

2)	51056	Cheese blend, American, slices; School choice Pre-sliced Blend: American Cheese/American Cheese Substitute 50/50; 5#, 160 slices, as served (Schreiber Foods, #02-5093-40)	2 oz	300
	18064	Bread; wheat (includes wheat berry)	2 slices	300
	5013	Chicken meat, roasted	3 oz	200
	11179	Corn; sweet, yellow frozen, cooked, boiled, drained, w/o salt	1/2 c	400
	11250	Lettuce, (includes Boston & bibb), raw	1 c	100
	11529	Tomatoes; red, ripe, raw	1/4 c	100
	9020	Applesauce; canned, sweetened, w/o salt	1/2 c	200
	9040	Bananas; raw	1 med.	300
		Milk Menu		

Tuesday, September 15, 2009

3)	900000	Biscuit w/egg & ham	1 each	200
	60003	Salisbury Steak	1 patty	300
	1000094	Potatoes, mashed, w/ vitamin C; Trio Mashed Potatoes with Vitamin C- Can, as purchased (Nestle Brands- #4013-2)(CND# 51252)	1 serving	300
	11053	Beans, green, fresh, cooked, boiled, drained w/o salt	1/2 c	400
	18186	Cookies; peanut butter, commercially prepared, soft-type	1 each	300
	9003	Apples; raw. w/ skin	1 med.	200
		Milk Menu		

Wednesday, September 16, 2009

4)	5192	Turkey; all classes, breast, meat & skin, cooked, baked	3 oz	500
	18082	Bread stuffing, bread; dried mix, prepared	1 c	500
	11313	Peas; green, frozen, cooked, boiled, drained, w/o salt	1/2 c	500
	50041	C-2, Crisp, apple; w/ rolled oats & butter	1 piece	500
		Milk Menu		

5)   **Thursday, September 17, 2009**

1000087	Burger, vegetarian, with fortified soy protein concentrate; Pillsbury Green Giant Harvest Burgers, Southwestern flavor (CND# 51078)	1 serving	500
18350	Hamburger or hot dog rolls/buns, plain	1 each	500
11935	Catsup	1 tsp	500
11944	Pickle relish, hot dog	1 tsp	500
11250	Lettuce, (includes Boston & bibb), raw	1 lrg. leaf	500
11529	Tomatoes; red, ripe, raw	1/4 c	500
9131	Grapes; American type (with skin), raw	1/2 c	500
	Milk Menu		

6)   **Friday, September 18, 2009**

50131	Salad, taco; w/ ground beef (24% fat), dehydrated onions & taco shell pieces (E-10)	1 salad	150
50240	Chicken Fajitas (D-40)	1 fajita	350
50188	Beans, refried; w/canned pinto beans, chicken broth & type c vegetable oil (I-15)	1/4 c	500
9191	Nectarines; raw	1 fruit	500
	Milk Menu		

         Saturday, September19, 2009

7) 50147	Stromboli with tomato sauce; w/ all-purpose flour, type C vegetable oil, & active dry yeast (F-6a)	1 piece	300
50250	Lasagna, vegetarian (D-50)	1 piece	200
11091	Broccoli; fresh, cooked, boiled, drained, w/o salt	1/2 c	500
11409	Potatoes; frozen, french-fried, extruded, prepared, heated/oven, w/o salt	10 strips	300
9200	Oranges; raw, all commercial varieties	1 med.	500
	Milk Menu		

Form updated 3/24/2009